Petro-Canada Looking for Long Life

Symbol	PCZ	Ebitda Next Twelve Months ending 9/30/05 (US\$mm)	4,200
Rating	Buy	North American Natural Gas/Ebitda (%)	22
Price (US\$/sh)	53.10	Natural Gas and Oil Production/Ebitda (%)	85
Pricing Date	11/5/04	Adjusted Reserves/Production NTM	7.6
Shares (mm)	269	EV/Ebitda	4.1
Market Capitalization (US\$mm)	14,300	PV/Ebitda	5.1
Debt (US\$mm)	3,200	Undeveloped Reserves (%)	23
Enterprise Value (EV) (US\$mm)	17,500	Natural Gas and Oil Ebitda (US\$/boe)	29.40
Present Value (PV) (US\$mm)	21,500	Present Value Proven Reserves(US\$/boe)	20.00
Net Present Value (US\$/share)	68	Present Value Proven Reserves(US\$/mcfe)	3.30
Debt/Present Value	0.15	Earnings Next Twelve Months (US\$/sh)	6.77
McDep Ratio - EV/PV	0.81	Price/Earnings Next Twelve Months	8
Dividend Yield (%/year)	0.9	Indicated Annual Dividend (US\$/sh)	0.49
Note: Estimated each flow and	cornings tigd to a	ne year futures prices for oil natural gas and refinery crack	

Note: Estimated cash flow and earnings tied to one-year futures prices for oil, natural gas and refinery crack. Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.

Summary and Recommendation

We continue a Buy rating on the common shares of **Petro-Canada (PCZ)** for the highest cash flow generation among Canada's integrated oil companies. The challenge is to redeploy cash from short-life properties to long-life assets. Oil produced offshore eastern Canada and internationally throws off cash at high rates while North American natural gas and oil sands offer long-life potential. Meanwhile the Canadian government no longer owns shares and the company appears to be managed capably. Our estimate of net present value of \$68 a share appears justified by a constant real oil price of \$35 a barrel while the recent average futures price for the next six years is \$41.

Five Core Areas in Four Businesses

The company defines itself and reports financial results in five core areas, North American Natural Gas, Canada East Coast Oil, International, Downstream and Oil Sands. North American Natural Gas and Downstream match our functional distinctions while we look at the remaining three areas as two functional distinctions, oil and overseas natural gas (see table <u>Functional Cash Flow and Present Value</u>).

The recent acquisition of Prima Energy, the U.S. Rocky Mountain producer, lengthened the reserve life for the premium gas business (see column headed "Adjusted R/P"). Discoveries in the MacKenzie Delta would also lengthen life when transformed to reserves as a proposed Arctic pipeline project proceeds after imminent approval. Liquefied Natural Gas plans for Overseas Natural Gas would also involve more sustainable production.

Most of the company's value, to no surprise, is in oil production. Petro-Canada is reaping the reward from East Coast oil where it erected the "Eighth Wonder of the World", the Hibernia concrete platform built to withstand collision with an iceberg. International oil production

Please see disclosures on the final page.

includes volumes from Libya and Syria as a result of a timely acquisition of resources previously owned by the German company, Veba.

Oil Sands include Petro-Canada's twelve percent ownership of Syncrude, a valuable long-life asset that recovers oil from sands mined on the surface. In addition, the company has some current production and ambitious plans to recover oil from sands too deep to be mined, but susceptible to in-situ production by the SAGD, Steam-Assisted Gravity Drainage technique.

Downstream is linked to oil sands in a C\$2.6 billion plan to upgrade the company's Edmonton refinery. By providing processing for its future heavy oil production Petro-Canada can earn the most value-added, as it does now with its share of Syncrude, and protect itself from potentially steep discounts for heavy oil.

Functional Cash Flow and Present Value								
				Present				
	NTM Ebitda	Adjusted	PV/	Value				
	<u>(US\$mm)</u>	<u>R/P</u>	<u>Ebitda</u>	<u>(US\$mm)</u>				
North American Natural Gas	909	9.0	5.3	4,800				
Overseas Natural Gas	186	5.8	4.3	800				
Oil	2,489	7.3	5.1	12,700				
Downstream	643		5.0	3,200				
	4,227	7.6	5.1	21,500				
Debt (US\$mm)					3,200			
Net Present Value (US\$mm)					18,300			
Shares (mm)					269			
Net Present Value (US\$/sh)					68			

Petro-Canada Functional Cash Flow and Present Value

More Gains Appear to Lie Ahead

Commodity price drives further gains in cash flow in our model (see table <u>Next Twelve Months</u> <u>Operating and Financial Estimates</u>). The high rate of cash flow implies a low multiple of Enterprise Value to Ebitda of about 4 times. The low multiple reflects in part a reserve life of 7.6 years on our adjusted basis that is shorter than for peer companies.

Most of management's decisions on reinvesting cash flow appear well-timed considering today's oil price. Investors' greatest concern may be the sustainability of the current level of oil price. Energy consumers and energy investors should, in our opinion, take recent oil price action as a sign of a long term change to higher price. Recent softening of oil price is welcome relief for the economy while we adjust to the price increases that have occurred and prepare for those that may occur in the future.

Petro-Canada						
Next Twelve Months Operating and Financial Estimates						
(Canadian Dollars)						

	(Canadian Dollars)								
									Next
									Twelve
	QI	Q2	Q3	Q4E	Year	QIE	Q2E	Q3E	Months
Volume	3/31/04	6/30/03	9/30/04	12/31/04	2004E	3/31/05	6/30/05	9/30/05	9/30/05
Natural Gas (mmcfd)									
U.S. (or North America)	508	531	521	521	522	508	508	508	511
Overseas	174	131	130	130	142	174	174	174	163
Total	682	662	651	651	663	682	682	682	674
Oil (mmb)	23.7	22.1	20.9	20.7	87.3	20.0	20.0	20.1	80.8
Oil (mbd)	260	243	227	225	239	222	220	218	221
Total gas & oil (mmb)	34.0	32.2	30.9	30.7	127.7	30.3	30.4	30.5	121.8
Total gas & oil (mbd)	374	353	336	333	349	336	334	332	334
Price									
Natural gas (\$/mcf)									
Henry Hub (US\$/mmbtu)	5.64	6.10	5.49	7.20	6.11	8.86	7.17	7.12	7.59
Currency (US\$/C\$)	0.76	0.74	0.77	0.82	0.77	0.82	0.82	0.82	0.82
Henry Hub (C\$/mmbtu)	7.43	8.29	7.18	8.80	7.94	10.84	8.77	8.71	9.28
U.S. (or North America)	6.46	6.91	6.60	8.09	7.02	9.96	8.07	8.01	8.52
Overseas	5.26	5.19	5.00	5.79	5.30	5.53	5.39	5.24	5.47
Total	6.15	6.57	6.28	7.63	6.65	8.83	7.38	7.30	7.79
Oil (\$/bbl)	25.22	20.24	42.00	50.96	43.00	40.00	47.27	46.00	49.21
WTI Cushing (US\$/bbl) WTI Cushing (C\$/bbl)	35.23 46.41	38.34 52.09	43.89 57.38	50.86 62.22	42.08 54.52	48.60 59.45	47.37 57.94	46.02 56.29	48.21 58.97
Worldwide	40.41	46.46	52.43	56.85	34.32 48.91	54.32	52.95	50.29 51.44	53.97 53.91
Total gas & oil (\$/bbl)	37.43	40.40	45.72	51.00	43.91	54.52 51.01	47.20	46.08	48.82
NY Harbor 3-2-1 (\$/bbl)	6.98	12.64	7.83	5.54	8.25	6.88	8.51	7.73	7.16
Revenue (\$mm)	0.70	12.01	7.05	0.01	0.20	0.00	0.01	1.15	/110
Natural Gas									
U.S. (or North America)	299	334	316	388	1,337	456	373	374	1,591
Overseas	83	62	60	69	274	87	85	84	325
Total	382	396	376	457	1,611	542	458	458	1,916
Oil	974	1,027	1,095	1,175	4,272	1,088	1,061	1,032	4,356
Downstream	2,134	2,335	2,459	2,459	9,387	2,459	2,459	2,459	9,836
Other	(17)	(193)	(308)	(308)	(826)	(308)			(616)
Total	3,473	3,565	3,622	3,784	14,444	3,781	3,979	3,949	15,492
Expense									
Upstream	342	442	434	482	1,700	481	465	460	1,888
Downstream	1,933	2,124	2,328	2,289	8,675	2,269	2,246	2,246	9,050
Other	(17)	(193)	(308)	0 771	(518)	2 750	2 711	2 706	-
Total	2,258	2,374	2,454	2,771	9,857	2,750	2,711	2,706	10,938
Ebitda (\$mm) Upstream	1,014	981	1,037	1,151	4,183	1,149	1,055	1,030	1 291
Downstream	201	211	1,037	1,131	4,185	1,149	213	213	4,384 786
Total	1,215	1,191	1,168	1,321	4,894	1,339	1,268	1,243	5,170
Exploration	45	65	49	49	208	49	49	49	196
Deprec., Deplet., & Amort.	10	00		.,	200	.,	.,	.,	170
Upstream	288	274	283	283	1,128	283	283	283	1,132
Downstream	67	69	69	69	274	69	69	69	276
Total	355	343	352	352	1,402	352	352	352	1,408
Ebit	815	783	767	920	3,284	938	867	842	3,566
Interest	37	38	33	33	141	33	33	33	132
Ebt	778	745	734	887	3,143	905	834	809	3,434
Income Tax	272	261	257	310	1,100	317	292	283	1,202
Net Income (\$mm)									
Upstream	462	355	451						
Downstream	87	92	40						
Other	(44)	37	(14)		A 6 42	500	<i>с 10</i>	50 (
Total	505 266	484	477	577	2,043	588	542	526	2,232
Shares (millions)	266	266	269	269	268	269	269	269	269 8 20
Per share (\$) Ebitda Margin (E&P)	1.90 80%	1.82 72%	1.77 73%	2.14 74%	7.63 75%	2.18 74%	2.01 74%	1.95 73%	8.29 74%
Tax Rate	35%	35%	35%	35%	35%	35%	35%	35%	35%
				55/0	00/0	22/0	22/0	55/0	

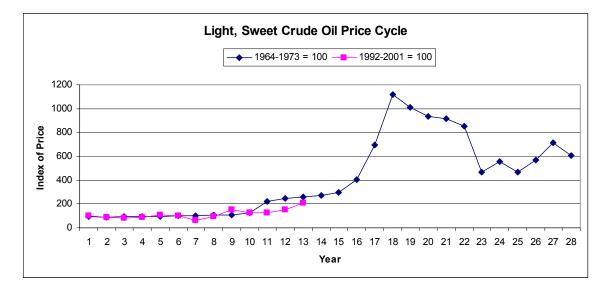
Please see disclosures on the final page.

Oil Price Move Possibly Just Starting

To offset any inclination to underestimate further potential for oil and gas price, we compare the relatively stable price period from 1992 to 2001 to the period from 1964 to 1973. Each was a ten year period that immediately preceded a sharply lower stock market in 2002 and in 1974. After quiescence, oil price started moving up in each case. We may be in the early stages of a new historic move (see chart Light, Sweet Crude Oil Price Cycle).

Frankly, few investors would give much weight to the likelihood of continued oil price strength. Contrast that with the growing chorus for a weaker dollar. It may just be that oil price is not high, but the real value of the dollar is low. That, too, is a parallel to historical experience.

Let us imagine how the cycle might unfold. By the way we chose to draw the chart Year 13 corresponds to 1976 and 2004. Once the move got going in the previous cycle, the annual average oil price did not decline until Year 19 (1982). The annual peak of 1100, or 11 times the first ten year average, was too high to be sustained. It might be less disruptive economically if the peak ahead of us were lower and the decline shallower. The end point in Year 28 at 600 implies a tripling over the next 15 years. If higher oil price unfolded gradually it would give everyone time to adjust.



Kurt H. Wulff, CFA

Disclaimer: This analysis was prepared by Kurt Wulff doing business as McDep Associates. The firm used sources and data believed to be reliable, but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

McDep does no investment banking business. McDep is not paid by covered companies including revenue from advertising, trading, consulting, subscriptions or research service. McDep shall not own more than 1% of outstanding stock in a covered company. No one at McDep is on the Board of Directors at a covered company nor is anyone at a covered company on the Board of Directors of McDep.

McDep or its employees may take positions in stocks the firm covers for research purposes. No trades in a subject stock shall be made within a week before or after a change in recommendation.

Certification: I, Kurt H. Wulff, certify that the views expressed in this research analysis accurately reflect my personal views about the subject securities and issuers. No part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research analysis.

Research Methodology/Ratings Description: McDep Associates is an independent research originator focused on oil and gas stocks exclusively. The firm applies the thirty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value. Buy recommendations are expected to deliver a total return better than 7% per year above inflation. Hold recommendations are expected to deliver a negative total return less than 7% per year including the effects of inflation.